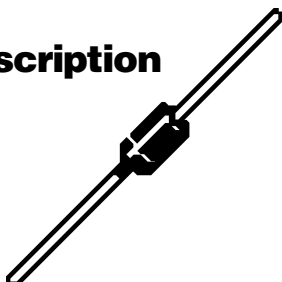


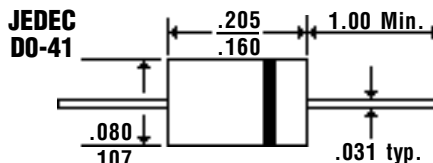
1.0 Amp FAST SWITCHING MEGARECTIFIERS

1N4942GP...48GP Series

Description



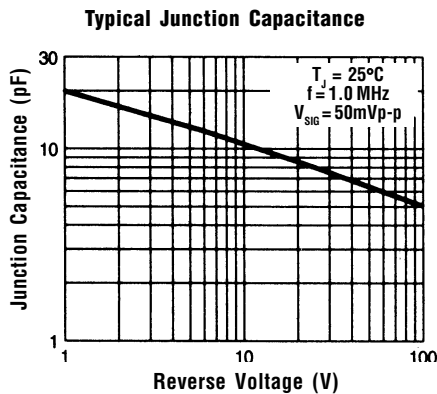
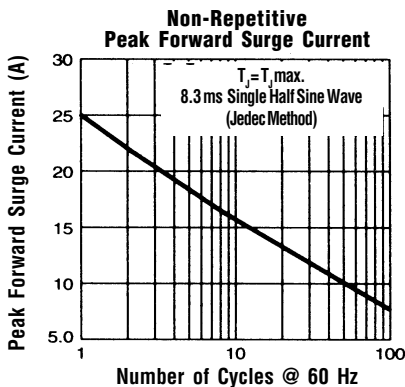
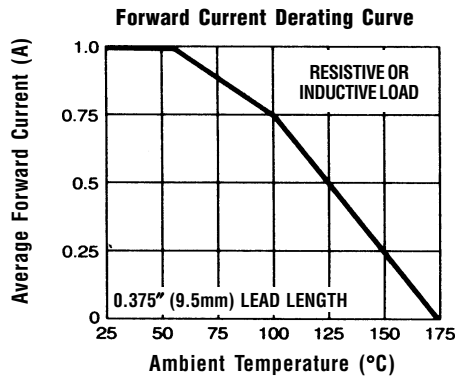
Mechanical Dimensions



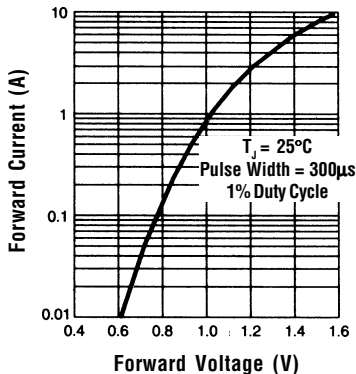
Features

- **HIGH TEMPERATURE METALLURGICALLY BONDED CONSTRUCTION**
- **1.0 AMP OPERATION @ $T_A = 55^\circ\text{C}$, WITH NO THERMAL RUNAWAY**
- **SINTERED GLASS CAVITY-FREE JUNCTION**
- **TYPICAL $I_R < 0.1 \mu\text{Amp}$**

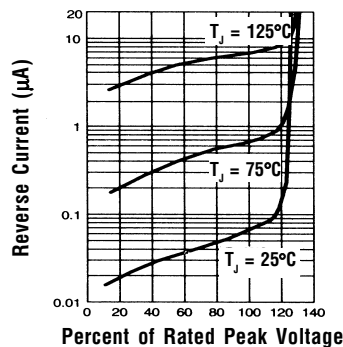
1N4942GP . . . 48GP Series						Units
Maximum Ratings	1N4942GP	1N4944GP	1N4946GP	1N4947GP	1N4948GP	
Peak Repetitive Reverse Voltage... V_{RRM}	200	400	600	800	1000	Volts
RMS Reverse Voltage... $V_{R(rms)}$	140	280	420	560	700	Volts
DC Blocking Voltage... V_{DC}	200	400	600	800	1000	Volts
Average Forward Rectified Current... $I_{F(av)}$ 3/8" Lead Length @ $T_A = 55^\circ\text{C}$	1.0					Amps
Non-Repetitive Peak Forward Surge Current... I_{FSM} 8.3ms, 1/2 Sine Wave Superimposed on Rated Load	25					Amps
Operating & Storage Temperature Range... T_J, T_{STRG}	-65 to 175					$^\circ\text{C}$
Electrical Characteristics						
Maximum Forward Voltage @ 1.0A... V_F	1.3					Volts
Maximum DC Reverse Current... I_R @ Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$					μAmps
	$T_A = 125^\circ\text{C}$					μAmps
Typical Junction Capacitance... C_J (Note 1)	15					pF
Typical Thermal Resistance... $R_{\theta JA}$ (Note 2)	55					$^\circ\text{C/W}$
Maximum Reverse Recovery Time... t_{RR} (Note 3)	< 150 > < 250 > < .. 500 .. >					ns



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Ratings at
25 Deg. C ambient
temperature
unless otherwise
specified.

Single Phase Half
Wave, 60 Hz
Resistive or
Inductive Load.

For Capacitive
Load, Derate
Current by 20%.

- NOTES:**
1. Measured @ 1 MHz and applied reverse voltage of 4.0V.
 2. Thermal Resistance from Junction to Ambient at 3/8" Lead Length, P.C. Board Mounted.
 3. Reverse Recovery Condition $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$.